

Arizona Department of Environmental Quality



via e-mail

August 8, 2015 FPU16-056

Ms. Catherine Jerrard AFCEC/CIBW 706 Hangar Road Rome, NY 13441

RE: WAFB – ADEQ Comments – Draft Soil Vapor Extraction System Operation and Maintenance Report July through September 2014 Former Liquid Fuels Storage Area, Site ST012 Former Williams Air Force Base Mesa, Arizona; prepared for Air Force Civil Engineer Center AFCEC/CIBW, Lackland AFB, Texas; prepared by Amec Foster Wheeler Environmental & Infrastructure, Phoenix, Arizona; document dated August 11, 2015

Dear Ms. Jerrard:

Arizona Department of Environmental Quality (ADEQ) Federal Projects Unit (FPU) and ADEQ contractor UXO Pro, Inc. reviewed the above-referenced document. General are provided below.

General Comments

- 1. Clarify if the vadose zone is primarily aerobic or anaerobic. Lines 547 through 548 indicate anaerobic (methanogenic) "microniches" exist within the vadose zone.
- 2. Clarify the intent of emphasizing the elevated CH₄ "microniches" when current and historical information from both the SVE and SEE systems suggest that anaerobic conditions already are prevalent in the absence of active remediation.
- 3. Clarify impact that the atmospheric oxygen introduction into the subsurface during vapor extraction may have on inhibiting the less volatile hydrocarbon degradation.
- 4. Clarify if enhanced bioremediation (EBR) may be impacted by either elevated methane "microniches", or atmospheric oxygen introduction into the subsurface during vapor extraction.

ADEQ may add or amend comments if evidence to the contrary of our understanding is discovered at the referenced location; submitted or received information is determined to be inaccurate; if any condition was unknown to ADEQ at the time this document was signed; or if complementary regulatory agencies bring valid and proven concerns to our attention.

Ms. Catherine Jerrard, AFCEC FPU16-056, ADEQ Comments -- WAFB, Draft SVE O&M Rpt, July -- Sept. 2014, Site ST012 USAFCEC for EPA and ADEQ, doc dated Aug. 11, 2015 Page 2 of 2

Thank you for the opportunity to review this document. Should you have any questions regarding this correspondence, please contact me by phone at (602) 771-4121 or e-mail miller.wayne@azdeq.gov.

Sincerely,

Wayne Miller

ADEQ Project Manager Federal Projects Unit Remedial Projects Section Waste Programs Division

ce: Catherine Jerrard, USAF AFCEC/CIBW

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